



UK EPR GDA PROJECT				
UK EPR	Title: Resolution Plan for GI-UKEPR- CI-03			
	RP unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 1 of 8
Approved for EDF by: A. PETIT		Approved for AREVA by: C. WOOLDRIDGE		
Name/Initials	Date	30/06/2011	Name/Initials	Date
				30/06/2011

Resolution Plan Revision History

Rev.	Description of update	Date issued
0	Initial issuance	30/06/2011

1.0 GDA ISSUE

GDA Issue Title	Main Assessment Area	Related Assessment Area
Claims, Arguments, Evidence Trail	C&I	None

GDA Issue	The quality of the assessed Claims, Arguments and Evidence supporting documentation provided by EDF and AREVA requires revision and improvement.
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2.0 OVERVIEW OF SCOPE OF WORK

The scope of work covers:

- improvement to the identification of key safety case claims in the Pre Construction Safety report (PCSR) and the linking to the arguments and evidence that substantiates the claims.
- improvement to the arguments and evidence demonstrating conformance to HSE Safety Assessment Principles (SAPs).

The response to improving the PCSR safety case claims, argument, evidence (CAE) was submitted after the end of the GDA Step 4 assessment phase as a reference document from section 7.1 of the PCSR (March 2011 update) and is awaiting assessment by ONR.

Observations will be addressed in line with the ONR review and milestone.

The response substantiating the claims demonstrating conformance to ONR SAPs was submitted in phases during GDA Step 4. The final phase of the SAP CAE trail response was provided in September 2010.

ONR has made a number of observations on the SAP CAE trail submission in the Step 4 Assessment report. These observations will be addressed as part of the activities set out in this

UK EPR	UK EPR GDA PROJECT			
	Title: Resolution Plan for GI-UKEPR-CI-03			
	GI unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 2 of 8

resolution plan. Improvement of the Claim/ Argument/ Evidence trail will consider the comments received in GDA step 4.

3.0 GDA ISSUE ACTIONS AND RESOLUTION PLAN DELIVERABLES

3.1 Action GI-UKEPR-CI-03.A1

Action I/D	Action Description
GI-UKEPR-CI-03.A1	<p>The CAE trail documentation provided by EDF and AREVA requires revision and improvement. EDF and AREVA to revise and improve the CAE trail documentation. In particular to:</p> <ul style="list-style-type: none"> review the UK EPR PCSR C&I sections and ensure that a clear CAE trail is provided for all key claims; identify the evidence and related argument which demonstrates satisfaction of each of the ONR C&I SAPs. <p>For more guidance see: T13.TO1.01, T13.TO1.02, T13.TO1.03 (including all TOs referenced in the TO Table) and T13.TO2.01 to T13.TO2.43 in Annex 3; T16.TO2.27 in Annex 6; T17.TO2.26 in Annex 7; and T18.TO2.08 in Annex 8 of Step 4 C&I Division 6 Assessment Report, No. 11/022 Revision A (Draft).</p> <p>With agreement from the Regulator this action may be completed by alternative means.</p>

3.1.1 Deliverables already submitted to ONR/EA in response to GI-UKEPR-CI-03.A1

The following documents are relevant for GI-UKEPR-CI-03. The first document was submitted after the GDA Step 4 assessment phase and has not yet been assessed by ONR.

	Date of submission
PCSR I&C Claims, Arguments and Evidence (CAE) Final - Document 16626-709-000-RPT-0003 Issue 1, ND(NII)EPR 00851N <i>This document identifies safety case claims made on the I&C to achieve the overall goal of supporting the safety of the UK EPR and the arguments and evidence required to sustain these claims.</i>	07/04/2011
Claims-Argument-Evidences trail for satisfaction of SAPs relevant to I&C PELL-F DC 9 Revision C, ND(NII)EPR00581R <i>This document provides a Claims-Argument-Evidences trail for SAPs relevant to I&C.</i>	27/09/2010

3.1.2 Planned submissions in response to GI-UKEPR-CI-03.A1

UK EPR	UK EPR GDA PROJECT			
	Title: Resolution Plan for GI-UKEPR-CI-03			
	GI unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 3 of 8

3.1.2.1 Description of Scope of Work

The response to improving the PCSR safety case claims, argument, evidence (CAE) was submitted after the end of the GDA Step 4 assessment phase as a reference document to section 7.1 of the PCSR (March 2011 update) and is awaiting assessment by ONR. The planned update of the PCSR I&C Claims, Arguments and Evidence (CAE) Report will ensure any gaps due to modifications to the UK EPR I&C are fully addressed.

The response substantiating the claims demonstrating conformance to ONR SAPs was submitted in phases during Step 4. The final phase of the SAP CAE trail response was provided during September 2010.

ONR observations on the SAP CAE trail submission have been provided in the Step 4 Assessment report. The update of the justification of UK EPR compliance with SAPs relevant to I&C will consider and address all the relevant Technical Observations (TO) made by ONR and TSC on document PELL-F DC 9.

3.1.2.2 Description of Methodology to be employed

The PCSR CAE Trail identifies key safety case claims and provides linking from the claims to the arguments and evidence that substantiates the claims. The PCSR safety case claims, argument, evidence (CAE) is a reference document from section 7.1 of the PCSR (March 2011 update) and is awaiting assessment by ONR.

The SAP CAE trail demonstrates conformance to ONR SAPs relevant to I&C and uses claims, arguments and evidence to substantiate the conformance.

The work will be carried out by EDF/AREVA staff who have the necessary competence in Nuclear I&C design. Support will be provided as necessary from equipment suppliers and where appropriate from specialist contractors. The work will be carried out under QA arrangements established for the GDA, which comply with ISO 9001.

All deliverables will be subject to co-applicant review by the requesting parties. Regular technical review meetings will be programmed to ensure that the work carried out is proceeding to plan in line with the proposed requirements and standards.

Regular review meetings will be organised with ONR and their technical support.

Documents affected by these tasks are listed in section 3.1.2.3.

Task 1 – Update of PCSR CAE Trail

The PCSR CAE trail document was produced in parallel with the March 2011 PCSR update.

This document will be updated to incorporate changes identified after issuance and to align with the next update of the PCSR. The update will also consider changes in the PCSR and comments from ONR/TSC.

UK EPR	UK EPR GDA PROJECT			
	Title: Resolution Plan for GI-UKEPR-CI-03			
	GI unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 4 of 8

The document uses a claims, argument, evidence approach to identify how requirements for the UKEPR C&I important to safety are satisfied.

Regular review meetings will be organised with ONR and their technical support.

Task 2 – SAP CAE Trail

The SAP CAE trail document was delivered to ONR in four parts between July and September 2010. This document will be updated to incorporate changes committed since its issue in September 2010 (e.g. changes described in letter ND(NII) EPR00607R), potential new changes in 2011 and comments from ONR/TSC. The document uses a claims, argument, evidence approach to identify how requirements for the UKEPR I&C important to safety satisfies I&C related to SAPs.

Regular review meetings will be organised with ONR and their technical support.

3.1.2.3 Deliverable description

Submission date to ONR/EA

PCSR I&C Claims, Arguments and Evidence (CAE) Report (task 1)
Update of document 16626-709-000-RPT-003 Issue 1

30/06/2012

This document identifies key safety case claims made for the UK EPR I&C and provides linking from the claims to the arguments and evidence that substantiates the claims.

Claims-Argument-Evidences trail for satisfaction of SAPs relevant to I&C. (task 2)
Update of document PELL-F DC 9

30/06/2012

This document sets out compliance claims made for the UK EPR I&C against each of the ONR C&I SAPs and provides the related arguments and evidence which demonstrates satisfaction of each of the SAPs relevant to I&C.

4.0 SUMMARY OF IMPACT ON GDA SUBMISSION DOCUMENTATION

4.1 GDA submission documents impacted by GDA Issue and scheduled to be created (C) or updated (U) within GDA

GDA Submission Documents

C/U

Related GDA Issue Action(s)

Submission Date to ONR/EA

SSER sub-chapters

None except for update of the version of reference documents mentioned in PCSR Chapter 7.1 "Design principles of the I&C systems".

30/06/2012

UK EPR	UK EPR GDA PROJECT			
	Title: Resolution Plan for GI-UKEPR-CI-03			
	GI unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 5 of 8

GDA reference design documents (SDM in UKEPR-I-002)

None

Other GDA submission supporting documents

PCSR I&C Claims, Arguments and Evidence (CAE) Report Update of document 16626-709-000-RPT-003 Issue 1 **U** GI-UKEPR-CI-03.A1 30/06/2012

Claims-Argument-Evidences trail for satisfaction of SAPs relevant to I&C Update of document PELL-F DC 9 C **U** GI-UKEPR-CI-03.A1 30/06/2012

4.2 GDA submission documents impacted by GDA Issue and scheduled to be updated post GDA

None

UK EPR	UK EPR GDA PROJECT			
	Title: Resolution Plan for GI-UKEPR-CI-03			
	GI unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 6 of 8

5.0 JUSTIFICATION OF ADEQUACY

EDF and AREVA have reviewed the UK EPR PCSR and implemented arrangements to ensure the I&C safety case documentation includes adequate arguments that link evidence components to claims. The key safety case claims made for the UK EPR I&C in the PCSR have been identified. Evidence substantiating each of the claims is provided for each claim and arguments linking the evidence to the claims in place.

The PCSR I&C Claims, Arguments and Evidence (CAE) Report 16626-709-000-RPT-003 Issue 1 identifies the key safety case claims made for the UK EPR I&C and provides the linking from the claims to the arguments and evidence that substantiates the claims.

The planned update of the PCSR I&C Claims, Arguments and Evidence (CAE) Report will ensure any gaps due to modifications to the UK EPR I&C are fully addressed.

EDF and AREVA make compliance claims for the UK EPR I&C against each of the ONR C&I SAPs and provide arguments and evidence to demonstrate satisfaction of each of the SAPs relevant to I&C.

The update of the Claims-Argument-Evidences trail for satisfaction of SAPs relevant to I&C Report will ensure that all SAPs relevant to I&C have been covered and that satisfaction of each SAP is fully supported by substantiating evidence and arguments linking the evidence to the relevant SAP.

The planned update of the Claims-Argument-Evidences trail for satisfaction of SAPs relevant to I&C Report will ensure any gaps due to modifications to the UK EPR I&C are fully addressed.

The update of the justification of UK EPR compliance with SAPs relevant to I&C will consider and address all the relevant Technical Observations (TO) made by ONR and TSC on document PELL-F DC 9 C in GDA Step 4, including those listed below.

T13.TO1.01 will be addressed in task 2
T13.TO1.02 will be addressed in task 2
T13.TO1.03* will be addressed in task 2
T13.TO2.01 will be addressed in task 2
T13.TO2.02 to 42 will be addressed in task 2
T13.TO2.43 will be addressed in task 2
T16.TO2.27 will be addressed in task 2
T17.TO2.26 will be addressed in task 2
T18.TO2.08 will be addressed in task 2

*This will include the more specific Technical Observations listed in the Step 4 report Annex 3 under T13.TO1.03.

UK EPR	UK EPR GDA PROJECT			
	Title: Resolution Plan for GI-UKEPR-CI-03			
	GI unique number: GI-UKEPR-CI-03-RP	Revision No.: 0	Effective Date: 30/06/2011	Page No.: 7 of 8

6.0 TIMETABLE AND MILESTONE PROGRAMME LEADING TO THE DELIVERABLES

Consult the following pages for the associated timetable and milestone programme.

ID	Task Name	Qtr 2, 2011			Qtr 3, 2011			Qtr 4, 2011			Qtr 1, 2012		Qtr 2, 2012			Qtr 3, 2012			Qtr 4, 2012			
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
73	CI03																					
74	I&C Claims, Arguments and Evidence (CAE) Report for PCSR (Update 16626-709-000-RPT-003)																					
75	I&C Claims, Arguments and Evidence (CAE) Report for PCSR (Update 16626-709-000-RPT-003) - Issue to ONR																					
76	I&C Claims, Arguments and Evidence (CAE) Report for PCSR (Update 16626-709-000-RPT-003) - ONR review																					
77	I&C Claims, Arguments and Evidence (CAE) Report for PCSR (Update 16626-709-000-RPT-003) - Converge with ONR																					
78	I&C Claims, Arguments and Evidence (CAE) Report for PCSR (Update 16626-709-000-RPT-003) - Final issue																					
79	I&C Claims, Arguments, Evidence trail for SAP compliance (Update PELL-F DC 9)																					
80	I&C Claims, Arguments, Evidence trail for SAP compliance (Update PELL-F DC 9) - Issue to ONR																					
81	I&C Claims, Arguments, Evidence trail for SAP compliance (Update PELL-F DC 9) - ONR review																					
82	I&C Claims, Arguments, Evidence trail for SAP compliance (Update PELL-F DC 9) - Converge with ONR																					
83	I&C Claims, Arguments, Evidence trail for SAP compliance (Update PELL-F DC 9) - Final issue																					

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			